

the modulation scheme of subcarriers having a high power level is increased, whereas the modulation scheme of subcarriers having a poor power level is decreased departing from a default modulation scheme.

4. (Amended) Method according to claim 1,  
characterized in that

A1  
the modulation schemes of the subcarriers are adapted such that the total number of coded bits per symbol is constant.

5. (Amended) Method according to claim 1,  
characterized in that

along with the adaptation of the modulation schemes the transmission power of the subcarriers are adapted such that the total transmission power of all subcarriers remains unchanged.

7. (Amended) Method according to claim 1,  
characterized in that

A2  
an adaptive loading information reflecting the adaptation of the modulation scheme of the subcarriers is exchanged between a transmitter (11) and a receiver (10).

9. (Amended) Method according to claim 1,  
characterized in that

A3  
a plurality of subcarriers is bundled into groups and the same modulation scheme is applied for all subcarriers belonging to the same group.

11. (Amended) Computer software program product,  
characterized in that

A4  
it implements a method according to claim 1 when run on a computing device of a wireless transmitting device.